

REMARKS

The Office Action dated February 6, 2007, has been received and carefully noted. The above amendments to the claims, and the following remarks, are submitted as a full and complete response thereto.

Claims 1-20, 22-25, and 27-30 are currently pending in the application, of which claims 1, 9, 18, 24, and 30 are independent claims. Claims 1, 5-7, 9-20, 22, and 24-25 have been amended, and claim 30 has been added, to more particularly point out and distinctly claim the invention. No new matter has been added. Claims 1-20, 22-25, and 27-30 are respectfully submitted for consideration.

Claims 1-4, 6, 9, 11-14, 17-18, 20, and 23-24 were rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent Application Publication No. 2003/0214525 of Esfahany (“Esfahany”). Applicants respectfully traverse this rejection.

Claim 1, upon which claims 2-8 and 27 depend, is directed to a system configured to perform cluster management to enable configuration and monitoring of a cluster from a single-point. The system includes a network interface configured to communicate with nodes in the cluster. The system also includes a memory configured to store information relating to cluster management. The system further includes a configuration subsystem coupled to a remote management broker, wherein the remote management broker is configured to distribute information between the nodes in the cluster. The system additionally includes a processor configured to access the cluster from the single-point. The processor is also configured to obtain information relating to devices within the

cluster. The processor is further configured to present the information to a user. The processor is additionally configured to determine network management operations to perform to the cluster. The processor is also configured to perform the determined network management operations. The processor is further configured to determine whether the network management operations on the cluster were applied correctly, and when the network management operations were not applied correctly, roll back to a successful configuration.

Claim 9, upon which claims 10-17 and 28 depend, is directed to a method including providing cluster management to enable the configuration and monitoring of a cluster from a single-point. The providing cluster management includes accessing the cluster from the single-point. The providing cluster management also includes obtaining attributes relating to devices within the cluster. The providing cluster management further includes receiving input from a user relating to the attributes. The providing cluster management additionally includes determining network management operations to perform on the cluster based on the received input. The providing cluster management also includes performing the determined network management operations on the cluster. The providing cluster management further includes determining whether the network management operations on the cluster were applied correctly, and when the network management operations were not applied correctly, rolling back to a successful configuration.

Claim 18, upon which claims 19-20, 22-23, and 29 depend, is directed to a computer readable storage medium including instructions for causing a computer to perform obtaining attributes relating to devices within a cluster from a single-point. The instructions are also for causing a computer to perform receiving input relating to the attributes. The instructions are further for causing a computer to perform determining network management operations to perform on the cluster based on the received input. The instructions are additionally for causing a computer to perform distributing the network management operations to the devices within the cluster. The instructions are also for causing a computer to perform applying the network management operations. The instructions are further for causing a computer to perform determining whether the network management operations on the cluster were applied correctly, and when the network management operations were not applied correctly, rolling back to a successful configuration.

Claim 24, upon which claim 25 depends, is directed to a cluster management apparatus including means for obtaining attributes relating to devices within a cluster from a single-point. The apparatus also includes means for receiving input relating to the attributes. The apparatus further includes means for determining network management operations to perform on the cluster based on the received input. The apparatus additionally includes means for distributing the network management operations to the devices within the cluster. The apparatus also includes means for applying the network management operations to the devices within the cluster. The apparatus further includes

means for determining whether the network management operations on the cluster were applied correctly, and when the network management operations on the cluster were not applied correctly, rolling back to a successful configuration.

Applicants respectfully submit that Esfahany fails to disclose or suggest all of the elements of any of the presently pending claims.

Esfahany generally relates to a system and method for managing object based clusters. Esfahany proposes an object-oriented approach to discovering, monitoring, and managing resources associated with cluster objects.

Claim 1 recites, in part, “a configuration subsystem coupled to a remote management broker, wherein the remote management broker is configured to distribute information between the nodes in the cluster.” Esfahany fails to disclose or suggest at least these features of claim 1.

The Office Action asserted that these features are disclosed by Esfahany at Figure 4, block 402, paragraph [0037] for the configuration subsystem, and Figure 4, block 400, paragraph [0037] for the remote management broker. Applicants respectfully disagree with the Office Action’s analysis.

Block 400 of Figure 4 of Esfahany is not a remote management broker, and is not configured to distribute information between the nodes in the cluster. Paragraph [0037] indicates that “control information may be passed from the system 400 to the clusters to facilitate managing clusters.” This, however, is not equivalent to distributing information **between the nodes in the cluster** as recited in claim 1. Accordingly, Esfahany’s system

400 is not a remote management broker as recited in claim 1, and Esfahany cannot anticipate claim 1.

Furthermore, “cluster” in the claims of the present application means “a group of nodes configured to act as a single node,” as explicitly defined in the specification at page 4, lines 2-3. In contrast, Esfahany’s “cluster” is “a group of independent computer components coupled by software and/or hardware that facilitates the components working together as a single system,” as explicitly defined by Esfahany at paragraph [0003].

Esfahany’s object is not to manage a cluster from a single point, but to manage a plurality of clusters, as explained in paragraph [0003].

Claim 1 (as amended) recites, in part, “A system, configured to: perform for cluster management ~~that allows to enable~~ the configuration and monitoring of a cluster from a single-point.” Esfahany does not disclose or suggest this feature of claim 1.

The Office Action cited Esfahany’s abstract as disclosing this feature. The abstract speaks of a “methodology for discovering, monitoring, and managing object-based clusters” but is silent as to its methodology enabling configuration of a cluster. As noted above, Esfahany’s object is not to manage a cluster from a single point, but to manage a plurality of clusters. Thus, it is evident that Esfahany leaves the configuration of an individual cluster up to the individual cluster, and instead discovers, monitors, and manages clusters. Thus, Esfahany does not disclose or suggest “A system, configured to: perform for cluster management ~~that allows to enable~~ the configuration and monitoring of a cluster from a single-point” as recited in claim 1 (as amended) or the similar recitations

in claims 9, 18, and 24. Accordingly, Esfahany does not anticipate any of claims 1, 9, 18, or 24.

Claim 1 (as amended) also recites “a processor configured to ... determine ~~if~~ whether the NM network management operations on the cluster were applied correctly, and ~~if~~ when the network management operations were not applied correctly, roll back to a successful configuration.” Esfahany also fails to disclose or suggest this feature of claim 1.

The Office Action took the position that this feature is disclosed in Esfahany at paragraph [0037]. The cited paragraph mentions that “data stored in objects that model the clusters may be passed from the objects to the clusters to facilitate restarting clusters and/or reestablishing a lost state.” At page 2, the Office Action states that “In order for the system to be in a lost state, it is determined that the operations were not applied correctly for the system to be in the ‘lost state’.”

The Office Action’s statement is not based on the disclosure found in Esfahany, and, thus, is not properly evidenced, and cannot be a proper basis of a *prima facie* anticipation rejection. Specifically, the Office Action’s statement regarding how a lost state is determined is not based on any evidence of record.

Additionally, the Office Action’s statement contradicts the plain sense of Esfahany’s disclosure. One of ordinary skill in the art would read Esfahany as stating the cluster supervisor 404 passes data to the cluster to make restarting or reestablishing a previous state that is no longer the state of the cluster easier (“to facilitate restarting

clusters and/or reestablishing a lost state”). One of ordinary skill in the art would not find any disclosure or suggestion of “a processor configured to ... determine ~~if~~ whether the ~~NM~~ network management operations on the cluster were applied correctly, and ~~if~~ when the network management operations were not applied correctly, roll back to a successful configuration” as recited in claim 1. Thus, withdrawal of the rejection of claim 1 is respectfully requested.

Independent claims 9, 18, and 24 recite similar features, and thus these distinctions are also show that independent claims 9, 18, and 24 recite subject matter that is neither disclosed nor suggested in Esfahany. Thus, withdrawal of the rejection of claims 9, 18, and 24 is respectfully requested.

Claims 2-4, 6, 11-14, 17, 20, and 23 depend respectively from, and further limit, claims 1, 9, and 18. Consequently, claims 2-4, 6, 11-14, 17, 20, and 23 each recite subject matter that is neither disclosed nor suggested in Esfahany. Withdrawal of the rejection of claims 2-4, 6, 11-14, 17, 20, and 23 is, thus, respectfully requested.

With regard to claim 17, for example, further distinctions exist between Esfahany and the claimed invention, particularly as to the claimed “single device within the cluster.” These distinctions were previously presented. The Office Action, at page 3, first paragraph, argued that Esfahany discloses the claimed “single device within the cluster” by teaching a device connected to the cluster. However, this is not consistent with either the express definition of cluster provided by Esfahany or the express definition of cluster recited in the present application. Accordingly, Esfahany’s teaching

of a device that is merely connected to a cluster cannot correspond to the claimed “single device within the cluster.” Thus, for this additional reason, the rejection of claim 17 should be withdrawn.

Claims 5, 7-8, 10, 15-16, 19, 22, and 25 were rejected under 35 U.S.C. 103(a) as being unpatentable over Esfahany in view of U.S. Patent Application Publication No. 2002/0152305 of Jackson et al. (“Jackson”). The Office Action took the position that Esfahany discloses some of the features of the claims, but cited Jackson to remedy the deficiencies of Esfahany with regard to various security-related features. Applicants respectfully traverse this rejection.

Claims 5, 7-8, 10, 15-16, 19, 22, and 25 depend respectively from, and further limit, claims 1, 9, 18, and 24. At least some of the deficiencies of Esfahany with regard to claims 1, 9, 18, and 24 are discussed above. Jackson was cited with regard to other features, and, thus, unsurprisingly, does not remedy the above-identified deficiencies of Esfahany.

Jackson generally relates to systems and methods for resource utilization analysis in information management environments. Among the many things discussed in Jackson’s seventy-three page application publication, there is discussion at paragraph [0130] of a secure port, and discussion at paragraph [0160] of an internal protocol. Jackson, however, is silent as to the above-identified deficiencies of Esfahany. Thus, the combination of Esfahany and Jackson fails to disclose or suggest all of the elements of any of the presently pending claims.

In addition to failing to remedy the above-identified deficiencies of Esfahany, Jackson fails to disclose or suggest “a message authentication code that acts as a shared secret within the cluster” as recited, for example, in claim 8.

The Office Action took the position that this feature is disclosed by Jackson at paragraph [0160], however, the cited paragraph is silent as to any message authentication code, or that any code at all acts as a shared secret within any cluster whatsoever. There is not even a mention of a cluster in the cited paragraph.

At page 3, the Office Action took the position that Jackson, at paragraph [0160] teaches that the system “includes in the message header a qualified field, which is used for authentication. The clusters uses [sic] an internal protocol ... therefore, [sic] the code is a shared secret within the cluster.” The Office Action also pointed to paragraphs [0159] and [0400], which mention some security related features. However, all of the cited paragraphs are silent both as to clusters and codes, or anything that acts as a shared secret. Accordingly, Jackson cannot even remedy all the deficiencies of Esfahany that the Office Action acknowledged, much less those discussed above.

Furthermore, there is no clear motivation to combine the teachings of Esfahany and these particular teachings extracted from Jackson’s more than six hundred paragraphs. The Office Action cited a different proposed motivation to combine for each of the proposed modifications to Esfahany. In each case, it appears that the Office Action simply noted the benefit of the feature described, and asserted that it would be obvious to add this feature to Esfahany because it is beneficial in Jackson. However, one of

ordinary skill in the art would not view the objects and goals of Jackson to be similar to those of Esfahany, and, therefore, would not be motivated to extract a few isolated concepts from Jackson and apply those to Esfahany. Accordingly, the proposed combination appears to be an improper hindsight reconstruction, rather than a properly motivated combination.

Claims 27-29 were rejected under 35 U.S.C. 103(a) as being unpatentable over Esfahany and Jackson in view of U.S. Patent No. 5,615,264 of Kazmierczak et al. (“Kazmierczak”). The Office Action took the position that the combination of Esfahany and Jackson discloses most of the features of the claims, except “the message authentication code is calculated from contents of the message and from a shared secret value that is known to the devices within the cluster.” The Office Action cited Kazmierczak to remedy the deficiencies of Esfahany and Jackson. Applicants respectfully traverse this rejection.

Claims 27-29 depend respectively from, and further limit, claims 1, 9, and 18. At least some of the deficiencies of Esfahany and Jackson with regard to claims 1, 9, and 18 are discussed above. Kazmierczak was cited with regard to other features, and, thus, unsurprisingly, does not remedy the above-identified deficiencies of Esfahany and Jackson.

Kazmierczak generally relates to encrypted data package record for use in remote transaction metered data system. At column 6, lines 50-61, Kazmierczak describes the formation of a secure header packet for its system. Kazmierczak, however, is silent as to

the above-identified deficiencies of Esfahany and Jackson. Thus, the combination of Esfahany, Jackson, and Kazmierczak fails to disclose or suggest all of the elements of any of the presently pending claims.

The Office Action asserted that Esfahany, Jackson, and Kazmierczak are analogous art because they are “from the similar problem solving area which is to authenticate contents of messages based on the header.” However, Esfahany evidently is not from such a problem solving area. Accordingly, the Office Action’s justification for the combination cannot support the rejection.

For the reasons explained above, it is respectfully submitted that each of claims 1-20, 22-25, and 27-30 recites subject matter that is neither disclosed nor suggested in the cited art. It is, therefore, respectfully requested that all of claims 1-20, 22-25, and 27-30 be allowed, and that this application be passed to issuance.

If, for any reason, the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by telephone, Applicants’ undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

In the event this paper is not being timely filed, Applicants respectfully petition for an appropriate extension of time. Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account 50-2222.

Respectfully submitted,

A handwritten signature in black ink, reading "Peter Flanagan", written over a horizontal line.

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Enclosures: Petition for Extension of Time
Additional Claim Fee Transmittal
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